CURRENT AMENDED CLAIM

1   1. (Previously presented) A method for using empirical measurements of

2   accesses to synchronization points within an application to construct a

3   performance model for the application, comprising:

4   modifying the application to record statistics related to the synchronization

5   points within the application, wherein the statistics include a directed call graph

6   specifying an ordering of function calls;

7   running the application to produce the statistics related to synchronization

8   points;

9   constructing the performance model based upon the statistics, wherein the

10   performance model is a queuing system model in which synchronization points in

11   the application are represented by service centers in the queuing system model,

12   wherein constructing the performance model involves constructing a queuing

13   model, wherein each synchronization point is a service center for jobs

14   representing processes that circulate between service centers in a manner

15   specified by the directed call graph; and

16   using the performance model to predict a performance of the application.